

INTELLECTUAL CAPITAL IN SMALL AND MEDIUM ENTERPRISES: CASE STUDY OF MALAYSIAN MANUFACTURING SMES

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Abstract

Intellectual capital is used by the SMEs to survive in the competitive market as well as maintain their performance. This study intends to identify the influence of intellectual capital on SMEs in Malaysia and the way that contributes in the performance of the overall organization. This paper also aims to examine whether SMEs organizations in Malaysia are using IC or not. The finding of this study indicated a positive relationship between intellectual capital and SMEs organizational performance in Peninsular Malaysia. This study associated the lack of SMEs organizational performance in Malaysia into the lack of intellectual capital. The finding of this study helps to better understanding SMEs performance in Malaysia and highlights the intensity of strategic or business orientation as the key solution to the lack of organizational performance. In this respect, Malaysian SMEs organizations should adopt techniques of intellectual capital as a primary condition to the success of their organizations.

Keywords: Intellectual capital, Human capital, Customer capital, Structural capital, Organizational performance

INTRODUCTION

If in the past, the labor force was the key factor for the performance of the firms; recently, knowledge in forms of intellectual capital is the most important motive. Knowledge and technological advancement have importantly stimulated firms' performance in the modern economy and its more known as a knowledge based economy. In this regard, intellectual capital has emerged to be the most prominent to increase organizational performance and ensure competitive advantages as well as survival in a competitive market economy. Sumedrea (2013) emphasized on the importance of intellectual capital and believes that companies can achieve a higher performance if they have individuals who possess knowledge on the changes and learning. Other scholars also studied the importance of Intellectual Capital as the most fitting strategy in business because of its credibility in driving firms to create value (Edvinsson & Malone, 1997).

Intellectual Capital has been identified as intangible assets and knowledge capital. In this regard, each process of intangible values should be evaluated as company's strategy. In this study, we try to explore the kind of Intellectual Capital that the entrepreneur adapts as a factor of good performance since IC consist three structures namely human capital, structural capital and customer capital. We also examine the relationship between Intellectual Capital and organizational performance among SMEs manufacturing companies as key elements of company's productivity. Intellectual capital is defined as an employment commitment towards the task given and they're competent to finish each works through their intelligence thinking. It also considers how an organization creates policies and system to ensure the operations going smoothly (Ulrich& Dave,1998). The value evaluation process of intangible resources or intellectual capital is necessary in a company's strategy implementation. Hence, the findings of this study will be

helpful business organizations to ratify the implementation of Intellectual Capital in performing enhanced brilliance decision with customer, business partner, supplier and competitor

DEFINITIONS OF SME

SMEs definition could be different from one place to another. Since this study is about Malaysia, so it's important to define the term in Malaysian perspective. According to SMEs Corporation of Malaysia, SMEs could be any business entities registered with one of these bodies (i) Companies Commission of Malaysia (SSM); or (ii) Corresponding authorities or constituency offices in Sabah and Sarawak; or (iii) Corresponding constitutional bodies. Beginning of 1 January 2014, SMEs received new reviewed of SMEs definition in order to get full support from programs and workshops organize by government. For the manufacturing sector, the SME sales turnover should not exceed RM50 million or full-time employees not more than 200 workers. Meanwhile, for service and other sectors, the sales turnover should not exceed RM20 million or full-time employees of no more than 75 workers for services and other sectors.

SME PRODUCTIVITY

The SMEs has been seen as a good catalyst in the development of the Malaysian economy through their contribution is economic sectors (Abd. Aziz & Mahmood, 2011). SMEs renowned as primary sources of employment, substance of the economy, paradigm in innovation and virtuous competition among SMEs entrepreneurs. In fact, SMEs in Malaysia is so effective in terms of their contribution in the Malaysian economic development and sustainability not comparable to other countries including neighboring Singapore. For instance, the productivity of SMEs in Malaysia is lower than other countries with average productivity at MYR 50,498 per employee (SME Corporation Malaysia, 2012a).

In addition, SMEs in Malaysia is lack of educated and skilled workers in which impacted on the whole process. This drawback was lead to unproductivity compared to the larger firms. Here, there is a serious issue with workers knowledge and skills that negatively correlated to the productivity of SMEs in Malaysia. Workers commonly leaving their career in Malaysia in the second country in order to get a better salary and an even better opportunity to perform. This is usually known as the transformation of human capital, which workers take the knowledge and experience they have into other firms in the country or the second countries (HCLI, 2012). Further, workers who are working in SMEs business are lack of training due to weakness of SMEs and lack of their interest to train and invest in their staff and workers human capital (ACCIM, 2012). This issue could also cause by deficiency of suitable courses (SME Corporation Malaysia, 2012b).

Obviously, Malaysian SMEs should invest more in human capital and develop their workers' knowledge through training and practical courses. To do so, they have sufficient resources provided by the government. Developing SMEs intellectual capital is due to its importance that becomes a primary resource in driving national economy and sustainability (Paul & Edward, 1999). Thus, SME Master plan 2012-2020 is a platform for SMEs entrepreneur access to finance, innovation and technology thoroughly perform their intellectual capital.

LITERATURE REVIEW

Intellectual Capital considered as one of the valuable assets for company during new product development to guarantee a greater return on investment. Chung et al., (2014) defined intellectual capital as the standpoint and the capacity of the firm to expand new product. In the knowledge based economy, intellectual capital (IC) is crucial strategic asset for the firms to expand their businesses. Also, IC remained as the main motive to stay competitive through distinguished, exploitation and usage of their intellectual capital (Khalique et.al, 2011). Moreover, Edvinsson and Malone, (2001) defined intellectual capital as an

asset, copyrights, trademarks, brand, patents or other forms of intellectual property that form a value to the company.

The IC also considered as the power of human brains that engender skills in production and technology. Such skills have been discovered and exploited in order for the firms to be able to foster value creation and growth. Furthermore, Nahapiet and Ghoshal, (1998) described IC as an assembly of knowledge resources. According to Dewi and Saudah, (2012) intellectual capital recognized as important elements amongst internal audit of Malaysian PLC specifically in IC management system for the ultimate job and business performance. Intellectual capital has been studied by using different elements. This study emphasizes three key elements of intellectual capital, namely human capital, external capital, also known as customer capital and structural capital.

The first element of the IC that widely used by the firms is human capital (HC) that expands the ability of the firm to use knowledge and technology. Human capital is indispensable since it is a core of innovation and important factors for implementation of strategies specifically derives from brainstorming, fantasizing, reducing the fragmentation of work, redesign core processes, increasing skills of personal or emerging new-fangled sales leads (Bontis, 1996). The significance of HC could be noted mainly in the first stage of the firm's operation in a market economy as discussed by Hormiga et al., (2010). Moreover, Youndt and Snell (2004), Kuan and Chao (2014) emphasized on the importance of human capital, which significantly impacts the revolutionary innovation orientation that stimulates market innovation stay ahead of the competition.

External capital is a consumer oriented or relational capital in which defines the relationship between organization and customer. Bontis (1996) argues that the firms through utilization of external capital may increase their profit. For instance, Sherrill (1998) acknowledged that because Coca-Cola has good external capital and widely accepted by customers, the firm is now worth at least US\$39 billion.

Sveiby (1998) also realized that customer loyalty and their satisfaction is very vital and can bring more sustainable profit to their firms. Thus, successful organization will promote networking and channels to market and suppliers. Furthermore, Akpinar and Akdamir (1999), highlighted that understanding consumer needs will make it better for business leader to promote and enhance their production level. For that organization must understand the psychology of their customer and makes their decision based on their demands as a measuring instrument of intellectual capital.

Apart from the relationship, external capital also possesses business reputation, brand name and trademark. Obviously, many large companies have survived and emerged to be more successful due to the use of brand names and their reputation in a market economy. Once a business organization reached to that level, customers put their trust and even protect them from any competitive challenges. Daniel (1999) classified external capital into five categories including supplier capital, alliance capital, community capital, regulatory capital, and competitor capital. Supplier capital refers to the commitment, creativity and mutual trust of suppliers. Alliance capital means that the business partner is reliable and useful to make a profit. Moreover, community suppliers could mainly refer to the reputation and capabilities of the organization in the community where they operate. Regulatory capital on the other hands denotes information that the organization possesses in relation to laws, regulations, contracts, and lobbying consumers. Therefore, competitor capital that helps organizations to understand their competitors.

The third element of the IC is structural capital. Structural capital is different from external capital because this one is mainly concentrated on the internal structure of the organization and more to employees' relationship. It encompasses the range of concepts, models, patents and system that are created by employees (Akpinar & Akdamir, 1999). However, these capitals are owned by the organization and could be received or transferred to another firm when they change their career or location. This capital could be purchased from outside of the organization, but will be used within the firm. The structural capital also includes culture and spirit in which change elsewhere.

Different organization following different or particular culture to better understand market requirements. Moreover, Buren and Yardstick (1999) accentuated that structural capital includes both innovation capital and process capital. The first one refers to the capacity of the firm to produce and innovate new product and services; later means the techniques, system and methods that have been utilized by the organization to achieve its goals. The internal capital in any organization should possess of four elements, namely system, structure, strategy, and culture (Daniel, 1999). The system is the way that organization communicating policies and information to formulate decisions over certain products and services. Structural capital is a way to promote the relationship between members of the organization and defines the type of that relationship, positions and responsibilities. Strategy on the other hand is the plan and objectives that organization tries to achieve by using new technologies, networks, system and any other way that possibly help to obtain them. Culture as discussed previously, refers to the shared values, norms, views, and opinion between members of the organization.

Akpinar and Akdamir (1999) examined the relationship between culture and strategy and found a strong association between the two factors. They further explained that organizational culture function effectively to filter business environment. Then, it influences on the business strategy that will be adopted by the firm. However, as they discussed such strategy can not be implemented if they do not pass through cultural filters. Despite the significance of culture in developing an organizational structure, but the authors argue that it is usually ignored by the firms due to the lack of knowledge on how to conduct cultural changes as bases to structural change. In the absence of such changes, they maintained that organizational changes will not be realized. To do so, they need to encourage cultural changes that take works into challenges so as to learn to try again and again even if they fail. In such cases organizational performance and objectives of the organization could be achieved.

Several studies have been conducted to examine the impacts of the IC elements on the performance of business organizations. Bontis et al., (1996) studied the influence of intellectual capital over the performance of the manufacturing sector in Malaysia. In this study, the authors have used structural capital, human capital as well as external capital as main dimensions of intellectual capital. The author here tried to compare which dimension is more contributes in the performance of the firms and more favored by manufacturing companies. The finding of this study indicated that human capital is more significant compare to other two dimensions. Surprisingly, they found a positive correlation between structural capital and customer capital. In the other words, the more customer capital organization possesses, the more efficient the structure will be and the more structure capital they possess, the more performance could be achieved.

Another study on the elements of the IC was conducted by Kehelwalatenna and Gunaratne (2010) in Srilanka's manufacturing and financial organization. The authors have excluded external capital, but he used Human capital and structural capital to examine the relationship. The findings showed that intellectual capital dimensions significantly impacts on the performance of manufacturing and financial firms as well as investor respondents. The opposite study was conducted by Wang (2011) who studied Taiwanese manufacturing firms in terms of intellectual capital and their performance. The study demonstrated that intellectual capital elements, mainly human capital, external capital, and structural capital in Taiwanese firms is avoided and that left negative influence on the performance of the firms.

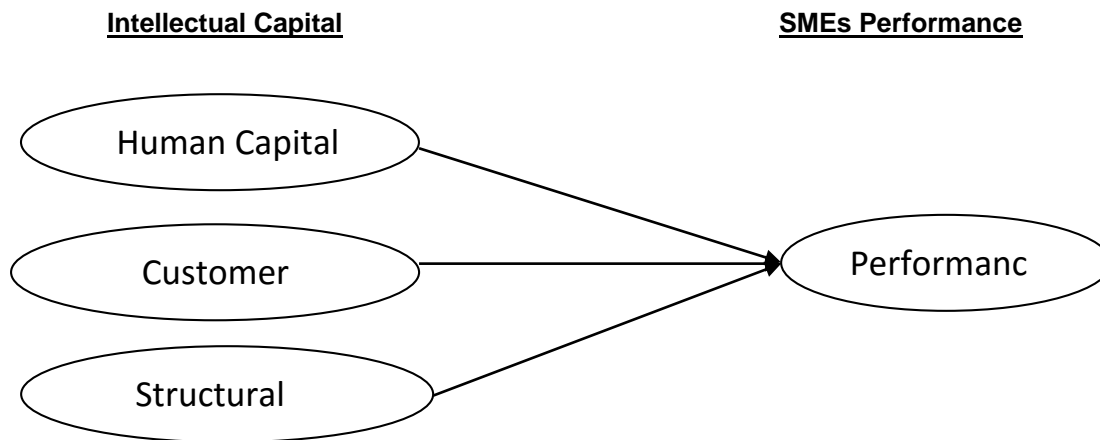
On the other hands, Jalilian et al., (2013) conducted a study to examine the effects of intellectual capital in the cement company in Kermanshah, a Kurdish city in Iran. In their study, they used three variables of HC, SC and relational capital as independent variable. They discovered all three variables interrelated in one hand, and significantly correlates with the financial performance as well as learning capability of the organization. Furthermore, structural capital here more referred to the leadership strategy which believed to be a good motive toward firms' performance. However, Kharal and Zia-ur-Rehman (2014) found firms that are pursuing differentiation, product diversity and segmentation strategy are more likely to perform that firm pursuing cost leadership strategy.

In another study by Roohollah et al., (2014) it has been demonstrated that human capital, structural capital and relational capital have significant impact on the performance of firms. Also, Housel and Bell (2001), point out workers that imply IC, contributes radically a firm the authority and flexibility to place new knowledge and engender new product line production. Therefore, firms which capitalize profoundly in increasing resilient and dedicated relationship, reflect a robust IC.

RESEARCH METHODOLOGY

According to SMEs Corporation of Malaysia, there are roughly 400 registered food and beverages SMEs manufacturing sector in Kuala Lumpur. This study deployed quantitative research method and predominantly relied on the survey. The survey questions were designed to explore the relationship between intellectual capital as independent variable and SMEs performance as the dependent variable. The model is shown in figure 1.1.

Figure 1: Conceptual Framework



The convenience sampling technique was utilized for data collection whereby 80 out of 196 questionnaires were returned from SMEs firms in Kuala Lumpur. The feedback rate was 40%, which was relatively acceptable. The survey questionnaires distributed to food and beverages SMEs which personally circulate to SMEs owner, manager or top level management and answer attained directly from respondents. Respondents were asked to answer the survey, which comprises of 6 questions; Also, the questionnaire encompassed 3 statements focused on the sorts of intellectual capital in SMEs in Malaysia which required the respondent to answer on every statement using scale one to five (1-5) as a Likert scale by choosing a score of 1 to 5 (1 means “strongly disagree” and 5 means “strongly agree”).

The first questions demonstrated the demography of the respondents. Most of the respondents ranged their ages between 26-40 years with the ratio of 47.5% and about 32. 50% of the respondents were ranging between 35-44 years old. Age between 45-65 resulted about 20%. Male respondent dominated by 66.25 % and female, 33.75% in term of gender dissemination. Highest level education classified with eight categories and the respondent given the chance to choose their educational level accurately. According to the result, 45% of the respondents hold Bachelor certificate, 20% hold Master, 18.75% Diploma, 7.50% holds secondary school, 5% hold PhD/DBA and only 3.75% hold a Professional Certificate.

FINDINGS

The findings of the study derived from primary data that are generated through survey questionnaires. The statements of questionnaires identify the type of intellectual capital that has commonly practiced by food and beverages SMEs manufacturing in Malaysia. In his questionnaire, Likert scale as used and respondents were asked to choose their preferences that was ranged between 1 as strongly disagree to 5 as strongly agree.

Table 1 designates that 47.50% of the respondents is agreed that the company take an effort in developing employees' knowledge and skills, while 11.25% chose to be neutral and 28.75% strongly agreed with the statement. The percentage of respondents who disagreed with the statement was very low, but not the lowest with only 12.5%. Accordingly, the respondents satisfied with the statement since the mean value for this statement was 3.92. Thus, this questionnaire intensely reflects the human capital adoption in SMES that focus on knowledge assets for ultimate growth.

Table 1. The company takes an effort in developing employees' knowledge and skills to boost employment growth.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total	Weighted Average
(No label)	0	10	9	38	23	80	3.92

Meanwhile, table 2 illustrates that around 42.5% of the respondents agreed with the statement "*intellectual property is a key intellectual asset for top management which is considered for value creation*" and none of the respondent strongly disagreed with the statement. Still, 31.25% were strongly agreed with this statement. However, the low percentage of respondents disagreed with percentage of 7.5%. The mean value of this statement was 3.98 that means respondents almost agreed with the statement.

Table 2. Intellectual property is a key intellectual asset for top management which is considered for value creation..

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total	Weighted Average
(No label)	0	6	15	34	25	80	3.98

Finally, table 3 explain 38.75% agreed that company's relationship with customer and supplier affect company's productivity. Furthermore, 48.75% strongly supported the company's relationship with customer and supplier, but 10% were rated neutral. The percentage of respondents who disagreed was very low which comprised 2.50%. The finding as shown in table 3. Indicates that respondents agree with the statement, whereby the weighted average for this question was 4.34.

Table 3. The company's relationship with customer and supplier affect company's productivity.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total	Weighted Average
(No label)	0	2	8	31	39	80	4.34

CONCLUSION

This study highlight how high levels of Intellectual Capital result in developing the food and beverages SMEs performance in Malaysia. Intellectual capital encompassed human capital, structural capital and relational capital. The execution of IC in SMEs manufacturing company has become an imperative mechanism for the enhancement of SMEs performance by implementing entrepreneurial strategic bearing. The results of this study, develop our comprehension of the role of intellectual capital in food & beverages SMEs running in the manufacturing sector. Futhermore, this study has accorded new path to owner of the business or manager to understand their business to further develop their firms. This magnificent research finding also generated beneficial information regarding the intellectual capital adoption amongst SMEs in Malaysia. The three elements of IC proved that in this knowledge-based economy, the awareness of intangible assets which include knowledge, skills, intellectual property, and customer relation are momentous these days as new sources of prosperity in business. The IC also focuses on information and knowledge diffusion as an apparatus for SMES manufacturing to succeed in business. Therefore, IC should be considered when establishing the EO-performance relationship. The adoption of IC increased productivity and cope the problem faced by SMEs through advance tactics. Besides, the component of IC like human capital, structural capital, and customer capital has created value to the organization as they upsurge the knowledge in economic expansion through knowledge transfer. IC impacts the firm performance because entrepreneurs are involved in strategy formulation which consisted firm knowledge, innovation, technical know-how, communication, market manifestation and society influence. This strategy is important fundamentals in this millennium impacting SMEs firms to performance.

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